

have increased, total population numbers appear to have decreased — opposite indicators of a healthy environment. Further study into landscape issues and species abundance is needed for developing good landscape management strategies to conserve biological resources. Locally, people can respond in ways that are economically better for themselves and ecologically friendlier for birds. First, we can preserve and manage forest, prairies, and other natural regions. Doing so is more financially efficient than managing manicured lawns and shrubs, because it eliminates the need for the upkeep of cutting, pruning and fertilizing. Second, when a habitat is altered, birds considered pest species may occur or increase, which has negative implications, both ecologically and economically.

Continued analysis of past and present data is extremely important as the need for environmental monitoring has reached a pinnacle. Our attempt to reinitiate bird banding at Benedictine University provided important insight into the local status of several avian species and the critical importance of the remaining campus forest. Careful management of the area is critical to conserve the biodiversity that is found there; unfortunately, the field and most of the woods surrounding the cemetery at the time of our study have since been destroyed for development. We recommend further banding on campus to continue monitoring the impact of these changes on the local avian community and the area's overall environmental health.

Acknowledgments

We wish to thank D. Taylor of the Benedictine University Department of Biological Sciences and the Howard Hughes Medical Institute for the opportunity and the funding of the project. We are grateful to Rev. T. Suchy, O.S.B. of the Benedictine University Department of Biological Sciences for his time and knowledge of trap locations and materials to get us started. J. Savaiano provided valuable computer assistance and D. Shafer provided helpful comments on this manuscript. Finally, we wish to thank Campus Services of Benedictine University for being flexible with the scheduling of ground maintenance and for being sensitive to our needs. This research was conducted under the provisions of all necessary state and federal permits.

Kathleen A. Savaiano, 22244 West Norwich Lane, Plainfield, IL 60544.

Jerald J. Dosch, Assistant Professor of Natural Sciences and Mathematics, College of Visual Arts, 344 Summit Avenue, St. Paul, MN 55102, e-mail to: jdosch@ben.edu jdosch@cva.edu.

Simpson's Index (D)

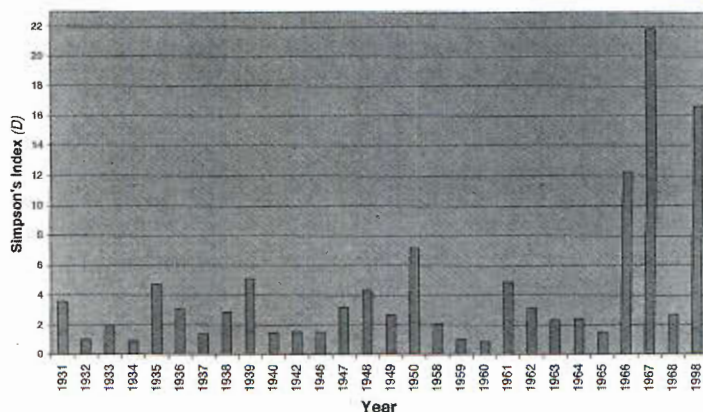


Figure 4. Simpson's Index (D) of community heterogeneity in the study area each year. A larger D value represents greater heterogeneity.

Literature Cited

- Bach, E. 1958, July 24. St. Procopius College studies bird habitats. Chicago Daily Tribune, Part 5, pp.1.
- Buresh, V., O.S.B. 1985. The Procopian Chronicles: St. Procopius Abbey. St. Procopius Abbey, Lisle, Illinois.
- DuPage County Development Department, Planning Division, 1996. DuPage County Statistical Handbook.
- Furness, R.W., J.J.D. Greenwood, and P.J. Jarvis. 1993. Can birds be used to monitor the environment. Pages 1-35 in Birds as monitors of environmental change (Furness, R.W. and J.J.D. Greenwood, Eds.). Chapman and Hall, New York.
- Galli, A.E., C.F. Leck, and R.T.T. Forman. 1976. Avian distribution patterns in forest islands of different sizes in central New Jersey. Auk 93:356-364.
- Greenwood, J.J.D., S.R. Baillie, H.Q.P. Crick, J.H. Marchant, and W.J. Peach. 1993. Integrated population monitoring: the effects of diverse changes. Pages 267-343 in Birds as monitors of environmental change.
- Krohne, D.T. 1998. General ecology. Wadsworth, New York.
- McClure, E. 1984. Bird banding. Boxwood Press, London.
- Morrison, M.L. 1986. Bird population as indicators of environmental change. Current Ornithology 3: 429-51.
- Sauer, J.R., J.E. Hines, G. Gough, I. Thomas, and B.G. Peterjohn. 1997. The North American breeding bird survey results and analysis. Version 96.4. USGS Patuxent Wildlife Research Center, Laurel, MD.
- Steadman, D.W. 1995. Prehistoric extinction of Pacific Island birds: biodiversity meets zooarchaeology. Science 267: 1123-28.
- United Nations, Environment Programme. 1995. Global biodiversity assessment. Cambridge University Press, Cambridge.
- Vitousek, P.M., C.M. D Antonio, and L.L. Loope. 1996. Biological invasion as global environmental change. American Scientist 84: 468-78.
- Weber, W.C., and J.B. Theberge. 1977. Breeding bird survey counts as related to habitat and date. Wilson Bulletin 89: 543-61.
- Weins, J.A. 1989. The ecology of bird communities. Cambridge University Press, Cambridge.
- Weston, J. 1959, June 11. Bug battle, vicious circle that destroys birds, increase insects. Clarion. Part 1, pp. 8.